

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

ECOFACTOR, INC.,

Plaintiff,

v.

ECOBEE, INC.,

Defendant.

Case No. 6:20-cv-00078-ADA

JURY TRIAL DEMANDED

ECOFACTOR, INC.,

Plaintiff,

v.

ECOBEE, INC.,

Defendant.

Case No. 6:21-cv-00428-ADA

JURY TRIAL DEMANDED

LEAD CASE

**DEFENDANT ECOBEE, INC.'S OPPOSITION TO PLAINTIFF ECOFACTOR, INC.'S
MOTION TO EXCLUDE EXPERT OPINIONS OF BRIAN D'ANDRADE, PH.D. AND
MOTION FOR PARTIAL SUMMARY JUDGMENT**

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I. Introduction

EcoFactor's motions—which ask the Court to strike certain opinions of ecobee's invalidity expert Dr. Brian D'Andrade, and grant partial summary judgment to EcoFactor—ask the Court to analyze limitations of U.S. Patent No. 10,584,890 ("the '890 Patent") differently for purposes of infringement and invalidity. EcoFactor also misconstrues '890 Patent limitation 1[k] and mischaracterizes the challenged opinions of Dr. D'Andrade regarding that limitation. Whereas Dr. D'Andrade's relevant opinions relate to the obviousness of limitation 1[k] in view of Benco in combination with other references, EcoFactor argues against Benco in isolation (as though it were an anticipatory reference). In its zeal, EcoFactor even challenges Dr. Andrade's opinion on matters where he and EcoFactor's validity expert, Dr. John Palmer, admittedly agree. Accordingly, EcoFactor's motions are baseless and should be denied.

II. EcoFactor Seeks to Avoid an Invalidity Finding by Mischaracterizing the '890 Patent

EcoFactor seeks to strike Dr. D'Andrade's alleged opinion that the Benco¹ reference meets limitation 1[k] because, EcoFactor claims, Dr. D'Andrade falsely asserts that Benco discloses a thermostat that receives the geolocation of a mobile terminal. However, setting aside EcoFactor's inaccurate depiction of Dr. D'Andrade's opinion, EcoFactor is mischaracterizing limitation 1[k]. Limitation 1[k] requires "one or more processors configured with electronic circuitry to . . . receive radio frequency signals from the location-aware mobile device." Ex. A ['890 Patent] at col. 33, lines 40, 57-58. Notably, this limitation does not impose any restrictions regarding the content of the message the "receive[d] radio frequency signals" must contain—much less does 1[k] require that the content include geolocation information. Accordingly, EcoFactor's argument that the

¹ "Benco" refers to U.S. Patent Application Pub. No. 2011/0153525.

[REDACTED]

Benco thermostat must receive radio frequency signals containing *geolocation* information (as opposed to other information) incorrectly reads a non-existent requirement into limitation 1[k].

EcoFactor appears to be conflating limitation 1[k] with other limitations of the '890 Patent. For example, limitation 1[d] requires that the thermostat system include "a wireless radio compatible with a wireless radio frequency protocol and configured to communicate bi-directionally with a location-aware mobile device." *See* Ex. A ['890 Patent] at col. 33, lines 36-38. And limitation 1[l] requires the receipt of geo-positioning data from the location-aware mobile device. *See* Ex. A ['890 Patent] at col. 33, lines 59-65 ("one or more processors configured with electronic circuitry to . . . receive geo-positioning data from the location-aware mobile device . . ."). However, EcoFactor is not moving to exclude any of Dr. D'Andrade's Benco-related opinions with respect to either of those limitations. Its argument is based exclusively, and completely, on limitation 1[k].

III. EcoFactor Mischaracterizes Dr. D'Andrade's Opinions

In addition to misconstruing the '890 Patent, EcoFactor also ignores that Dr. D'Andrade's Benco-related opinions for claim 1 of the '890 Patent are *obviousness* opinions based upon the *combinations* of (1) Ehlers and Benco; and (2) the ecobee SMART thermostat and Benco.² *See* Ex. B [D'Andrade Report Excerpt]³ at ¶¶ 76, 78. More specifically, Dr. D'Andrade described these combinations as resulting in systems that would use the communication system disclosed by Ehlers or the ecobee SMART thermostat with the geolocation system of Benco incorporated

² As EcoFactor notes, Dr. D'Andrade also opined that claim 1 of the '890 Patent is obvious in view of the ecobee SMART thermostat alone. As that opinion does not rely upon Benco, EcoFactor's motion does not challenge that opinion. *See* EF Mot. at 1 n.1.

³ Exhibit B contains additional excerpts to the D'Andrade Report beyond those submitted by EcoFactor as Exhibit 1 to its motion. *See* D.I. 68-2. Should the Court wish to review the entirety of any of Exhibits B-F (which are also excerpted), ecobee would be happy to submit them.

therein—e.g., by adding geolocation information to the information already received by the primary references’ thermostats. *See, e.g.*, D.I. 68-2 [D’Andrade Report] at ¶ 783 (“the geolocation system of Benco could be straightforwardly incorporated within the system of Ehlers by merely including the geolocation information within the external information already received and used by the control system of Ehlers.”); ¶ 1040 (“incorporating the geolocation system of Benco into the setpoint scheduling system of the ecobee SMART Thermostat . . . requires only minor alterations to the existing ecobee SMART Thermostat by which geolocation information is sent along with weather information from a server and used to amend the timing of the ‘Away’ periods within the existing schedule”).

EcoFactor’s motion, however, wrongly analyzes Benco *on its own*, as though it were the basis for an anticipation argument—not as part of an obviousness combination. This is contrary to Dr. D’Andrade’s opinions for limitation 1[k]. *See* D.I. 68-2 [D’Andrade Report] at ¶ 829 (“As discussed in relation to claim element 1[d], the combination of Ehlers and Benco that a POSITA would be motivated to make discloses receiving radio frequency signals from a location-aware mobile device.”). For example, for the Ehlers and Benco combination, Dr. D’Andrade explains that combination renders obvious limitation 1[k] because “Ehlers expressly describes that communication can occur between nodes and devices via ‘Radio frequency (RF), or other wireless communications method[s]’ (*see, e.g.* Ehlers ’330, ¶0084).” D.I. 68-2 [D’Andrade Report] at ¶ 830. Dr. D’Andrade then asserts that Benco discloses a thermostat that receives a geolocation of the mobile terminal via a user device. *See id.* Thus, Dr. D’Andrade is relying upon the communication system of Ehlers combined with Benco’s location-aware mobile devices to assert that the Ehlers-Benco combination renders obvious limitation 1[k]’s required receipt of radio

frequency signals.⁴ *See* Ex. C [D'Andrade Tr.] at 185:2-186:5 (“Well, Ehlers discloses that such network will connect the different components, and Benco has a component that can be implemented into the Ehlers system that has geolocation information.”). EcoFactor’s motion should be denied accordingly, as it does not even relate to Dr. D’Andrade’s relevant opinions.

Contrary to EcoFactor’s assertions (EF Mot. at 7-8), Dr. D’Andrade’s opinions for limitation 1[k] are consistent with and supported by his opinions on the other communication-related limitations of the ’890 Patent. *See* D.I. 68-2 [D’Andrade Report] at ¶811 (“Consequently, at least because Ehlers discloses a distributed network of nodes and devices with direct wireless communication between devices within the network and interfaces implemented via mobile devices and computers, and at least because Benco explicitly discloses the use of geolocation information for determining how a control system optimizes power use by an HVAC system based on the presence or absence of users, a POSITA would understand that the specific combination of Ehlers with Benco that they would be motivated to make includes ‘a wireless radio compatible with a wireless radio frequency protocol and configured to communicate bidirectionally with a location-aware mobile device....’”).⁵

IV. EcoFactor’s Expert Agrees with Dr. D’Andrade’s Assertions Regarding Benco

Even if receipt of “geolocation of [a] mobile terminal” by the thermostat were necessary for Dr. D’Andrade’s Benco-related combinations to render limitation 1[k] obvious—which it is not—EcoFactor’s own expert agrees with Dr. D’Andrade regarding Benco’s disclosures.

⁴ EcoFactor’s confusing assertion that Dr. D’Andrade needed to advance an opinion that it would have been obvious to modify the communication system of Benco (EF Mot. at 8) only further serves to highlight that EcoFactor ignores Dr. D’Andrade’s actual obviousness combinations.

⁵ As noted above, contrary to EcoFactor’s assertions, whether or not geolocation information—as opposed to some other information—is received from the location-aware mobile device via radio frequency signals is immaterial for the purposes of limitation 1[k].

For example, EcoFactor's motions challenge Dr. D'Andrade's assertion that "Benco expressly discloses that the thermostat therein receives a geolocation of the mobile terminal via a user device, which is either a part of the thermostat or communicates with the thermostat via wired or wireless local-area network (see, e.g., Benco ¶¶0022, 0040, 0042, and 0046)." *See* EF Mot. at 3 (quoting D'Andrade Report at ¶ 830). EcoFactor argues in the motions that Benco contains no such disclosure and that Dr. D'Andrade's assertion is contradicted by the record. *See* EF Mot. at 1, 3-6. However, EcoFactor's attorney argument conflicts with the opinion of its own validity expert, Dr. Palmer, who agrees with Dr. D'Andrade's opinion regarding Benco with respect to limitation 1[k] of the '890 Patent.

For example, regarding limitation 1[k], Dr. Palmer's rebuttal opinions relate only to whether a POSITA would be "motivated to incorporate functionality requiring a 'location-aware mobile device' into the Ehlers '330 system." Ex. D [Palmer Report] at ¶ 584. ***Dr. Palmer does not dispute*** the statement in paragraph 830 of the D'Andrade Report regarding what ***Benco expressly discloses that EcoFactor now seeks to strike***. Indeed, Dr. Palmer confirmed as much at his deposition:

Q. The only portion of this claim limitation [i.e., limitation 1[k]] that you are disputing as to what Dr. D'Andrade has set forth is the aspect going to the location-aware mobile device; correct?

A. In this paragraph, I -- yes, I point out that Dr. D'Andrade does not indicate that the Ehlers '330 discloses the location-aware of mobile device.

Ex. E [Palmer Tr.] at 95:1-12.

Moreover, Dr. Palmer repeatedly agreed that Benco discloses a communication of geolocation information from the mobile terminal to the thermostat:

- "Benco talks about the -- the mobile phone -- or the -- sorry, the location-aware device communicating its -- its -- its geopositioning data. But it doesn't talk about the location-aware device receiving data from the -- from the thermostat or -- or

from the control system, which is why I said it's unidirectional as opposed to bidirectional." Ex. E [Palmer Tr.] at 92:15-93:10.

- "Right. It says that it's commuting -- communicating information to the thermostat that is controlling the power-consuming structure. So it's -- it's not saying that the information is going from the thermostat to the -- to the mobile device. It's saying the information is going from the mobile device to the thermostat." Ex. E [Palmer Tr.] at 93:17-94:10.
- "I don't dispute that Benco has a communication from a -- of geo -- geopositioning from a location-aware mobile device and uses that to make a change to the HVAC system." Ex. E [Palmer Tr.] at 96:12-22.

Thus, EcoFactor asks this Court to find that Benco does not disclose something that both sides' experts agree that it discloses.

V. EcoFactor's Motion Contradicts Its Own Infringement Theory

EcoFactor's motions seek to prevent the jury from hearing Dr. D'Andrade's invalidity opinion based upon his application of EcoFactor's own infringement theory for limitation 1[k] of the '890 Patent to his analysis of the prior art.

For purposes of these motions, EcoFactor argues that Benco does not expressly disclose that its thermostat receives a geolocation of the mobile terminal because: (1) Benco only discloses that intermediate geolocation server 222—and not the thermostat—receives geolocation information from the mobile terminals (citing e.g. Benco at ¶¶ 0040, 0042); and (2) the disclosed communications between the geolocation server and the thermostat do not include geolocation information—but rather other information, such as a power management protocol (citing e.g. Benco at ¶¶ 0040, 0046). *See* EF Mot. at 3-6. However, Benco's disclosures directly align with the alleged functionality of the ecobee accused products that EcoFactor contends infringes the '890 Patent. Thus, under EcoFactor's own theory, Benco discloses what EcoFactor claims it does not.

For example, with respect to limitation 1[k], EcoFactor's infringement expert, Mr. Erik de la Iglesia, opines that the ecobee accused products infringe because:

[E]ach ecobee thermostat includes an integrated processor and communicates with one or more ecobee servers that are implemented with computer hardware (e.g., memory, processors) using wireless radios. These processors receive radio frequency signals from a customer's location-aware mobile device using one or more wireless radios. ecobee's remote server-side processors communicate bidirectionally, using radio frequency signals, with processors inside ecobee thermostats and with location-aware customer mobile devices using the ecobee mobile app (and/or third party home integration apps).

See Ex. F [de la Iglesia Report] at ¶ 312. Thus, under EcoFactor's infringement theory, the presence of a geolocation server between Benco's mobile terminals and thermostat does not refute that the thermostat receives signals from the mobile terminals. EcoFactor improperly seeks to apply the limitation differently for purposes of invalidity.

Moreover, with respect to limitation 1[k], Mr. de la Iglesia also opines that:

ecobee supports automatic control of ecobee thermostat settings via geofencing with a customer's mobile device, including as part of Smart Home & Away features. To provide thermostat control via geofencing, [REDACTED]

[REDACTED] For example, when the customer exits a geofence area surrounding the home, the thermostat setting may automatically change from a Home setting to an Away setting—as discussed further below with respect to claim element 1[l].

Ex. F [de la Iglesia Report] at ¶ 312. Thus, under EcoFactor's infringement theory, Benco's disclosure that the geolocation server sends power management protocols—which can include temperature setpoints for low and high power modes (*see, e.g.*, D.I. 68-3 [Benco] at ¶ 0045)—to the thermostat instead of the actual location information received from the mobile terminals cannot refute that Benco discloses a thermostat that receives the geolocation of the mobile terminal. EcoFactor, again, seeks a different application of the claim language for the invalidity analysis.

Dr. D'Andrade expressly disclosed that his invalidity opinions for the '890 Patent are based upon the manner in which EcoFactor is construing the claims for infringement purposes. *See* D.I. 68-2 [D'Andrade Report] at ¶ 805 (“As detailed below, these limitations, as they are interpreted

by EcoFactor, are disclosed to a POSITA by the specific combination of Ehlers and Benco described in Section XII.A.1.”); ¶ 832 (“As discussed in relation to claim element 1[d], the combination of Ehlers and Benco that a POSITA would be motivated to make includes discloses a system that satisfies the requirement of claim element 1[l] as these requirements are interpreted by EcoFactor.”); *see also* Ex. C [D’Andrade Tr.] at 181:4-18. EcoFactor cannot argue that Dr. D’Andrade’s application of EcoFactor’s claim interpretations for invalidity purposes is improper. *See NetFuel, Inc. v. Cisco Systems Inc.*, No. 5:18-cv-02352, 2020 WL 1274985, at *5 (N.D. Cal. Mar 17, 2020) (denying motion to strike expert opinion regarding anticipation and obviousness where expert explained that “his interpretation of claim terms and prior art is based at least under the apparent application of the claims in NetFuel’s infringement contentions.”) (citations omitted).

Thus, at best, EcoFactor’s criticisms of Dr. D’Andrade’s opinions ring hollow. Dr. D’Andrade did not employ a flawed methodology to “create a false narrative as to what Benco discloses.” *See* EF Mot. at 6. Nor did Dr. D’Andrade “make up facts that are plainly contradicted by the prior art.” *Id.* Accordingly, EcoFactor’s cited case law is, therefore, inapposite. Instead, as set forth above, Dr. D’Andrade applied EcoFactor’s own interpretation of the claims to the prior art, and provided well-reasoned opinions regarding how the prior art invalidates the ’890 Patent in view thereof. In fact, EcoFactor’s own expert, Dr. Palmer, agrees with Dr. D’Andrade’s assertions regarding Benco’s disclosures. As such, EcoFactor’s claim that “[t]here can be no *genuine* dispute of fact because Dr. D’Andrade’s theory is directly contradicted by Benco” is plainly incorrect (EF Mot. at 9), and Dr. D’Andrade should be allowed to offer his opinions at trial.

VI. Conclusion

For the reasons discussed above, the Court should deny EcoFactor’s requested relief.

[REDACTED]
[REDACTED]

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Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the above and foregoing document was filed electronically UNDER SEAL and served by e-mail on January 13, 2023, to all counsel of record.

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